



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

BRIEFER ARTICLES.

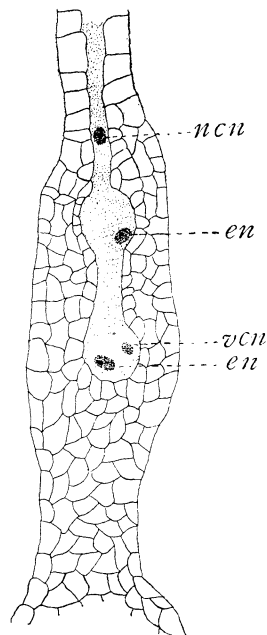
THE OCCURRENCE OF TWO VENTERS IN THE ARCHEGONIUM OF *POLYTRICHUM JUNIPERINUM*.

THE interesting phenomenon of a double venter in the archegonium of *Polytrichum juniperinum* was observed, in material sectioned and studied by the writer, in a course of comparative morphology and embryology of plants under the direction of Dr. Margaret C. Ferguson, of Wellesley College.

The archegonium illustrated in the accompanying figure shows two distinct venters, the lower venter containing two nuclei, which probably represent the egg cell and the ventral canal cell. The upper venter has doubtless been developed from the first neck canal cell and contains but a single nucleus. Directly above, in the neck of the archegonium, is the nucleus of the second neck canal cell.

Previous to the time that these observations were made, no similar phenomenon had been noted as occurring in the archegonium of the Musci, but, while preparing this note for publication, the February number of the *BOTANICAL GAZETTE* appeared, in which the "occurrence of two egg cells in the archegonium of *Mnium*" was described by Coker.¹

There are two opinions held today regarding the origin of the neck canal cells. According to Campbell,² the neck canal cells are derived from the terminal cell cut off from the mother-cell of the archegonium, while Gayet³ maintains that, in the Musci as in the Hepaticae, the terminal cell does not give rise to the neck canal cells, but that



Base of archegonium of *Polytrichum juniperinum* showing two venters.

¹ COKER, W. C., On the occurrence of two egg cells in the archegonium of *Mnium*. *BOT. GAZ.* 35: 136. 1903.

² CAMPBELL, D. H., Mosses and ferns 194. 1895.

³ GAYET, L. A., Recherches sur le développement de l'archegone chez les Muscinées. *Ann. Sci. Nat. Bot.* VIII. 3: 161-258. 1897.

they are derived from an initial cell cut off from the mother-cell of the oosphere. It would seem from the recent observations of two egg cells in the archegonium of *Mnium* and of *Polytrichum* that the neck canal cells are potential egg cells, and as such argue for Gayet's theory that the egg cell and neck canal cells have a common origin.—MARY C. BLISS, *Wellesley College*.

POLYEMBRYONY IN GINKGO.

IN the BOTANICAL GAZETTE 34:64, July 1902, I published a short note on the polyembryony of Ginkgo. Since polyembryony is of rather common occurrence among the gymnosperms, its frequency in Ginkgo becomes a point of some interest. Through the kindness of Dr. George T. Moore and Mr. Carl Kellerman, of the Department of Agriculture, I have secured a number of seeds of the Ginkgo. A careful examination of two hundred specimens give the following results: 12 per cent. were without embryos, while 2 per cent. showed two small but well-formed embryos in each seed. In the cases of polyembryony the embryos averaged about one-third the length of the single embryos. With one exception, the double embryos were approximately the same length; in this case one embryo was about twice the length of its fellow. The single embryos showed great variation in length, but the short ones were always thicker than the long ones. One embryo had three well-developed cotyledons. — MEL. T. COOK, *De Pauw University, Greencastle, Ind.*